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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,566	11/21/2003	Joachim Franke	2001P01928WOUS	3554

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

CASAREGOLA, LOUIS J

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,566

Applicant(s)

FRANKE ET AL.

Examiner

Louis J. Casaregola

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-19, 21-26 is/are rejected.
- 7) ☒ Claim(s) 20, 27, 28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC 112

Claims 13, 16-19 and 21-23 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claims 13, 16 and 21-23 describe a flow of air or other medium with expressions introduced by the phrase "can be applied"; see line 1 in any of the listed claims. Such language renders the claims indefinite since it is unclear whether the features following the cited phrase are bona fide claim limitations or mere options not actually required.

Claims 17-19 are also included in this rejection since they depend from claim 13 or 16 and thus contain the same improper language as their parent claim.

Claim Rejections - 35 USC 102

Claims 12, 13, 16, 17, 21 and 24 are rejected under 35 USC 102(e) as being anticipated by Fetescu et al '966.

The claimed cooling device reads on prior art power plant systems of the type disclosed by Fetescu. Attention is called for example to Fetescu's Figures 1, 2 and 4; note that gas turbine cooling air coolers 10 and 11 comprise channels enclosing steam evaporator tubes 110 (Fig. 4a). Note also that the coolers receive air from a gas turbine compressor, 7, as specified in claim 13. Attention is additionally called to valves 15

and 18, which constitute variable restrictors for controlling the flow rate of medium entering the evaporator tubes as specified in claims 16, 17 and 21.

Claims 12-14, 18 and 24-26 are rejected under 35 USC 102(e) as being anticipated by Gebke et al.

Gebke discloses a power plant having a similar air cooling arrangement. See Gebke's Figures 1 and 2; note that device 78 cools air from compressor 6 with evaporator tubes 92 (Fig. 2). In this case, the cooling air channel is horizontal and the evaporator tubes are vertical as specified in claims 14 and 18. Gebke's system further includes waste heat steam generator 30 and steam turbine 22 arranged such that feed-water is supplied (via line 82) from the steam circuit to the air cooler's evaporator tubes as specified in claim 25, and the evaporator tube outlets are connected (via elements 38, 44, etc.) to a high pressure stage of the steam circuit as specified in claim 26.

It is additionally noted that the claims include a "whereby ..." clause stating that the coolant evaporates completely and does so in a single pass; see claims 1 and 25, lines 4-5. It is maintained that this is merely a desired result that may or may not be fully achieved. Such material cannot be relied upon to define over structurally identical prior art such as Gebke (or Fetescue) since the claimed apparatus cannot be presumed to achieve the intended result to any greater extent than the prior art apparatus.

Claim Rejections - 35 USC 103

Claims 15, 19 and 23 are rejected under 35 USC 103(a) as being unpatentable over Fetescu et al '966 as discussed above and with further comment.

Claims 15 and 19 state that the recited evaporator tubes have fins. Fetescue's evaporator tubes 110 likewise include fins; see elements 111 in Figure 4a. Fetescue's fins are external of the evaporator tubes, whereas, the claimed fins are described as internal. It is noted however that applicants' disclosure specifically states that the fins can be internal or external (page 19, line 21), and the fins actually shown in the preferred embodiment are in fact external (see Figs. 4 and 5), hence, applicants acknowledge the general equivalence of the two alternative fin arrangements. Moreover, since either external or internal fins could perform the same basic heat transfer function, the choice of one over the other in prior art systems such as Fetescue's would have been an obvious matter of engineering selection based on secondary considerations; e.g. availability, ease of manufacture, maintenance requirements, etc.

Allowable Subject Matter

Claims 20, 27 and 28 contain allowable subject matter but are objected to as


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depending from rejected parent claims. If rewritten in independent form, these claims will be allowed.

Additional References

Kurosawa et al, Ranasinghe et al, and Fetescue et al '523 are cited as disclosing further pertinent examples of air cooling systems for gas turbines.

L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
August 3, 2005


LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).